Grammatical gender in L2 Swedish in Finnish-speaking immersion students : A comparison with non-immersion students

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GRAMMATICAL GENDER IN L2 SWEDISH BY FINNISH-SPEAKING IMMERSION STUDENTS

A comparison with non-immersion students

Abstract

Grammatical gender is challenging for L2 learners due to its abstract meaning, the complex nature of Swedish NPs and the low salience of the morphology used to mark gender. Our study compares the expression of gender in texts written in Swedish by Finnish-speaking 12- and 15-year-old immersion students with that of 16-year-old non-immersion students. The results show that NPs with gender agreement, i.e. those with several morphemes marking gender, are more difficult than NPs with only one marker. In all informant groups, uter is significantly easier than neuter, but uter is also overused, as ca 75% of all Swedish nouns are uter in modern Swedish. Comparisons between different informant groups show that non-immersion students often reach a significantly higher level of accuracy than immersion students, which indicates that formal teaching has a positive effect.

Key words: Complexity, Frequency, Gender agreement, Grammatical gender, Immersion, Swedish as L2

1 INTRODUCTION

Students in immersion reach a higher competence level than those in traditional (non-immersion) instruction as far as practical knowledge of the language, willingness to speak, and attitude

towards other languages are concerned (Lyster 2007, Bergroth 2015). However, Canadian studies (Genesee 1987; Harley 1993, 1998) have revealed challenges with grammatical accuracy; i.e. immersion methodology still requires development (Lyster 2007). Finnish immersion research has been multifarious (Bergroth & Björklund 2013), but grammatical competence has hitherto gained less attention.

This study aims to explore how Finnish-speaking immersion students express GRAMMATICAL GENDER (henceforth GENDER) in NOUN PHRASES (henceforth NPs) at the end of primary school (12 years old) and at the end of secondary school and immersion (15 years old)[1] compared to non-immersion students. The analysis is restricted to gender *within* NPs; i.e. gender agreement in predicate complements will be excluded. Canadian immersion learners of French (Harley 1998; Lyster 2004, 2010) use inaccurate gender, implying that it cannot be acquired only through communication, in which communicatively expendable categories like gender tend to be ignored (N. Ellis & Wulff 2015). Also, gender is often challenging for L2 Swedish learners, even through the advanced stages (Hyltenstam 1988, 1992), so this is also likely to resonate with Finnish-speaking immersion students learning L2 Swedish.

Housen and Simoens (2016) distinguish between FEATURE-RELATED (caused by inherent properties of a linguistic construction, e.g. frequency), CONTEXT-RELATED (caused by differences in learning conditions, e.g. immersion vs. traditional instruction) and LEARNER-RELATED (individual characteristics, e.g. age) factors behind SECOND LANGUAGE ACQUISITION (SLA). This study views gender from all three perspectives. An analysis of the production by L2 learners offers valuable information about which aspects of gender and gender agreement are most challenging and, hence, what explicit instruction should focus on, i.e. regarding feature-related factors. Comparisons between immersion and non-immersion students emphasise context-related factors, and between younger and older immersion students, they highlight learner-related

factors. Didactic interventions appear to help the learners focus on gender, leading to increased accuracy (Harley 1998; Lyster 2010). It is thus vital to analyse Finnish L2 learners of Swedish in order to establish a comprehensive picture of their ability to mark gender. It is also crucial to study immersion students separately from other L2 learners as this intensive and long-lasting learning programme combines rich input and meaningful interaction that makes it different from other methods.

2 GENDER IN SECOND LANGUAGE ACQUISITION

2.1 *Gender in Swedish*

Swedish nouns are either uter (indefinite article *en*) or neuter (indefinite article *ett*; Teleman et al. 1999a); Swedish is said to be less complex than, e.g. Norwegian (three genders; Faarlund et al. 2006). Corbett (2013) claims that gender always has a semantic core, but *Svenska Akademiens Grammatik* (Grammar of the Swedish Academy) states that, in Swedish, it usually lacks connection to the meaning of the word and semantic weight, as it causes shifts in the meaning of a noun only in rare cases (e.g. *en plan* 'open place, plan'; *ett plan* 'plane, floor, aeroplane'). Many nouns referring to humans are uter, but, e.g. *barn* ('child') is neuter. Nouns ending in *–ing* (e.g. *en tidning* 'a newspaper') are uter, but in most cases, there is no way to tell gender from the form of the noun, so one must learn the gender by rote (Teleman et al. 1999a; see also Audring 2019). Approximately 75% of all nouns in Swedish are uter; this distribution holds true for both oral and written, formal and informal discourse (see Bohnacker 2003 for overview[2]). Even L2

Swedish learners appear to be sensitive to input frequencies and use uter by default (Bohnacker 2003; see also 2.3).

Gender is inherent in nouns (Teleman et al. 1999a), manifested in Swedish by different grammatical morphemes (Table 1). The letter *n* often recurs in gender marking in uter, as the letter *t* does in neuter. Gender marking is especially consistent in neuter (cf Audring 2019). All examples are singular as modern Swedish lacks gender marking in plural (Teleman et al. 1999a). In this article, we distinguish between SIMPLE GENDER MARKERS (e.g. indefinite article) and GENDER AGREEMENT occurring in NPs with more than one gender marker.

In indefinite singulars, gender is marked by an INDEFINITE ARTICLE (see Table 1). In contrast, the definite singular form is built by adding a DEFINITENESS SUFFIX to the noun (henceforth SUFFIX; Teleman et al. 1999a:96–101, 407)[3]; gender marking is polyfunctional and intertwined with a definiteness marking. The suffix occurs in both countable and uncountable nouns, whereas an indefinite article is mostly used only with the countable ones. The DEFINITE FRONT ARTICLE (*den*, *det*, henceforth DEFINITE ARTICLE) only occurs in definite NPs with an adjective attribute (henceforth ADJECTIVE). Thus, these Swedish NPs can rightly be called ‘asymmetrical and abstruse’ (Philipsson 2004:125, our translation). The adjective attributes in Table 1 are marked with brackets as they always are optional. In semantically definite NPs, adjectives are syncretic for uter and neuter (the suffix *-a*) (Teleman et al. 1999a). Many definite (e.g. possessive) and indefinite pronominal attributes (henceforth PR ATTRIBUTES) also inflect for gender, and some are constructed with a definite noun; i.e. these NPs have two gender markers.

NP type	***Uter***	***Neuter***	***Gloss***
indefinite singular	*en (stor) katt*	*ett (stort) hus*	‘a (big) cat/house’
definite singular	*(den stora) katten*	*(det stora) huset*	‘the (big) cat/house’
indef. Attribute	*någon (stor) katt*	*något (stort) hus*	‘some (big) cat/house’
def. attribute	*min (stora) katt*	*mitt (stora) hus*	‘my (big) cat/house’
def. attribute + suffix	*den här (stora) katten*	*det här (stora) huset*	‘this (big) cat/house’
base form	*(god) mat*	*(gott) te*	‘(good) food/tea’

(Teleman et al. 1999a)

Table 1. Swedish NPs with gender markers at the phrase level.

Uncountable nouns (*mat*, *te*) occur frequently in the indefinite singular without an article. Countable nouns have this base form when the referent class is more important than its individual entity (e.g. *bil* ‘car’ in *Har du bil?* ‘Do you have a car?’; Teleman et al. 1999ab). This form is especially common in Swedish (Pettersson 1976). In such NPs, the only element marking gender is the potential adjective. Certain PR attributes, such as the possessive pronouns *hans/hennes/deras* (‘his/her/their’), and all genitive attributes (e.g. *Annas katt*/*hus* ‘Anna’s cat/house’) are indeclinable too. As the NPs are constructed with definite adjective and indefinite noun forms, they do not manifest gender.

2.2 *Usage-based grammar and challenges of grammatical gender*

The USAGE-BASED APPROACH sees SLA as a cognitive process of determining linguistic constructions in the input, using the same processes as in any cognitive activity; i.e. input is the most important source for SLA. These constructions are form-meaning mappings without any strict dichotomy between lexicon and grammar, with a fluctuating grade of abstraction (a continuum from concrete utterances to abstract productive formulae like [possessive attribute + indefinite noun]) and complexity (a continuum from morphemes, such as gender markers, to words and longer utterances, such as whole NPs). In time, learners more or less consciously discover regularities in constructions and start varying them with their communicative needs as a starting point, ultimately discovering the abstract formulae behind them. They abstract on how the parts link together and contribute to the construction's meaning. That is, grammar is an implicit, cognitive organisation of a learner's actual language experience that develops by adding new constructions to the inventory (Bybee 2008, Nistov et al. 2018).

Input frequencies are crucial for SLA: the more a learner confronts a construction, the more entrenched and accessible its mental representation becomes for language use, and the learner's perception system begins to expect certain constructions in certain contexts (N. Ellis & Wullf 2015, Audring 2019). Frequent sequences can be acquired as if they are independent of a general pattern; thus, they can help the learner analyse similar, less frequent forms (Bybee 2008, N. Ellis & Wulff 2015, Wray 2012, Prentice et al. 2016). However, high-frequency elements such as gender markers tend to have low salience; i.e. they are difficult to notice in the input (Bybee 2008, N. Ellis 2016, Goldschneider & DeKeyser 2001). Both immersion and communicative non-immersion language learning emphasise understanding the message more than form (Jaakkola 2000), and hence, learners may not perceive the grammar (DeKeyser 2005). This is why highly

frequent grammatical morphemes such as articles and suffixes are difficult to acquire in an L2: one cannot acquire what one has not noticed (Goldschneider & DeKeyser 2001).

SLA in immersion begins early on, mostly occurring spontaneously as an internalisation of rules when the learner focuses on meaning. Thus, parallels are seen between L1 and L2 acquisition, although the L1 impacts how L2 learners notice constructions in the input (N. Ellis & Wullf 2015). One's experience with the L1 can hamper SLA, especially in the earlier stages of acquisition, if the L1 lacks, e.g. grammatical morphemes occurring in the L2 (Collins et al. 2009, Bybee 2008, Jarvis 2002). As Finnish lacks grammatical gender (Karlsson 2017), Finnish-speaking L2 learners of Swedish may also have difficulty noticing gender markers in the input.

According to DeKeyser (2005), challenges acquiring L2 grammar are explainable by meaning, form or a combination of the two. As a highly abstract notion, gender is often used as the epitome of a construction with a challenging meaning, especially for L2 learners whose L1 lacks it (DeKeyser 2005). Although gender is said to always be rooted in semantics, it is doubtful whether it is possible to formulate clear and concise rules for this without many exceptions and advanced grammatical terminology for L2 learners (cf. R. Ellis 2006). The fact that uter is more frequent than neuter in Swedish also impacts acquisition; L2 learners are likely to use uter as the default gender (Bohnacker 2003).

Challenges with form are mainly connected to formal complexity. In our study, complexity occurs in NPs with gender agreement, i.e. with several morphemes that need to be put in the right places (cf. DeKeyser 2005). Due to allomorphic variation, however, certain letters recur in uter and neuter, which might ease acquisition (cf Audring 2019). Challenges in the relationship between form and meaning are connected with redundancy (occurrence of semantically expendable morphemes) or opacity (different forms having the same meaning; DeKeyser 2005). As Table 1 indicates, redundancy is typical of Swedish NPs with gender

agreement. Opacity can be detected in the fact that both indefinite articles and suffixes are polyfunctional (cf. Audring 2019): gender and definiteness are intertwined. Moreover, gender marking is particularly due to the high frequency of the base form often neutralised in the input (Pettersson 1976), which impedes the feature's consistency (cf. Audring 2019) and makes it difficult to notice in the input. An L2 learner might know a word without knowing its gender, for example if they have encountered it only in its base form in the input. Learners in non-immersion, however, also learn vocabulary by reading word lists, which is likely to make gender more salient (Toropainen et al. in press). In short, many factors connected to gender contribute to the challenges experienced by L2 learners of Swedish.

2.3 *Previous research in the acquisition of gender in Scandinavian languages*

Gender appears to be rather unproblematic for L1 learners, although they cannot explain how they choose accurate gender (Tucker et al. 1977, Corbett 1991). Svartholm (1978) and Plunkett and Strömqvist (1990) found that young Swedish children acquiring their L1 rarely make mistakes in gender. This is because their first NPs are definite singulars, in which the definiteness suffix is also marked for gender; i.e. they acquire gender when acquiring the communicatively central definiteness marking. Their NPs are not especially complex; e.g., they do not produce NPs with adjectives (Andersson 1994). L2 learners, conversely, often act rather arbitrarily when expressing gender (DeKeyser 2005). Next, we summarise the central results from previous research in Swedish and other Scandinavian languages as L2s.

A recurring result from studies with different elicitation methods and with informants with varying L1s is that the suffix is mastered at a higher level of competence than other gender

markers irrespective of the gender, as many definite forms are acquired as wholes (Andersson 1992, oral data from 16 informants with 10 different L1s and different ages of onset; Lahtinen 1998, written data from 342 Finnish-speaking students in upper secondary school). Similar results have been found in L2 Norwegian (n=500, Ragnhildstveit 2017, 2018). The second easiest gender marker is the indefinite article, whereas adjectives and definite articles reach lower scores (Andersson 1992, Lahtinen 1998).

Previous studies have found that the uter gender is mastered at a higher level of accuracy than the neuter (Andersson 1992, Lahtinen 1998). Uter nouns used by Andersson's (1992) adult informants are relatively accurate, but they tend to overuse them more than children, as they are able to draw conclusions from the input. Overuse of the uter gender has also been documented in L2 Danish (Braüner Kappelgaard & Bruun Hjorth 2017). Studies with informants with different L1s (Andersson 1992, Ragnhildstveit 2017) did not manifest sharp differences between the language groups. Andersson (1992) also states that children who started learning before the age of three mastered gender better than those who started later, but the latter also used more complex language; i.e. they had more potential for inaccuracies.

Lahtinen (1998) also stated that only 6% of inaccuracies in NPs with agreement were of the type where one of the elements has inaccurate gender (e.g. **ett stor katt* 'a big cat' or **en stor-t hus* 'a big house'). Gender agreement within an NP was also touched upon by Glahn et al. (2001), whose informants (adult L2 learners of Swedish, Norwegian and Danish [n=47]) produced an [indefinite article + adjective] in an oral test. Informants with all three L2s mastered gender agreement to a lesser extent than the semantically motivated number agreement, and uter appeared to be a default gender, overused in both articles and adjective attributes.

3 DATA AND METHOD

3.1 *Data collection and informants*

The data consist of 200-word written narratives (entitled *My Dream Journey/Holiday*). Informants were Finnish-speaking 6th graders (12-years-old, n=137) and 9th graders (15-years-old, n=163) enrolled in Swedish immersion (henceforth IM6 and IM9). The starting age for immersion varies in different parts of Finland (Bergroth 2007), but all immersion students in this study had started learning Swedish at daycare. The proportion of instruction in Swedish varied in different grades (Bergroth & Björklund 2013), but IM9 received 50% of all its instruction in Swedish. The standards set for competence in Swedish vary in different municipalities, but they are higher than in the non-immersion instruction context: pupils have to reach B-level on the CEFR scale in order to reach a level of 'good' at the end of secondary school (Bergroth 2015).

The texts by immersion students are compared to those by 16-year-old Finnish-speaking 1st graders in upper secondary schools (henceforth CG, n=93). They have received non-immersion instruction in Swedish since the age of 11[4], so they have been learning Swedish at school for six years. In Finland, 1st graders in upper secondary schools are the youngest non-immersion L2 Swedish learners to write longer texts and are therefore comparable to IM9. CG had received instruction in around 450 Swedish lessons in the comprehensive school (FNBE 2014a, Government Decree 422/2012), and they are expected to reach CEFR level A.2 in writing to reach a score of 'good' at the end of secondary school (FNBE 2014b). This is also likely to be their level after the first year in upper secondary school, as 'good' on the test in Swedish in the Matriculation Examination (i.e. the national final exam of the upper secondary school in Finland) corresponds approximately to a level no higher than a 'low B1' (Juurakko-Paavola & Takala

2013). During the first year in upper secondary school, CG had taken three of the six obligatory courses[5] in Swedish (FNBE 2015).

Although Swedish is one of the official languages of Finland, students in non-immersion settings learn Swedish, *de facto*, as a foreign language. Teaching materials and teachers are their principal sources of input as the students typically lack everyday contact with Swedish. Finnish immersion students, conversely, learn Swedish mainly as a result of communication. Both informant groups started learning English at the age of nine. Hence, IM6 and IM9 learned Swedish as their L2, whereas CG students learned Swedish as a third language (L3).

3.2 *Method*

Both NPs with accurate and inaccurate gender are included in a traditional analysis of obligatory occasions (cf. Ellis & Barkhuizen 2005). In an analogy with Andersson (1992) and Lahtinen (1998), we use the informants' gender markings as our starting point, compare them to the target language forms and classify them as accurate/inaccurate. As gender is an inherent language category (Teleman et al. 1999a), it is possible to judge gender accuracy, although the form produced by a learner would not exist (e.g. *en *katten* includes both an indefinite article and an unnecessary suffix, but both manifest accurate gender).

In this study, accuracy and inaccuracy refer only to gender, i.e. the analysis does not take definiteness into account[6]. Gender and definiteness, however, are practically intertwined, as articles, suffixes and many PR attributes inflect for gender. In the following, we do not consider whether the NPs of informants otherwise follow the grammatical norm; e.g. the NP *den här *katt* ('this cat', the accurate form being *den här katten*) is classified as accurate as far as gender is concerned, although it lacks a suffix, as the gender can be interpreted from the PR attribute. NPs

without a gender marking, e.g. NPs with a base form (see 2.1 above) and inaccurate NPs with omitted grammatical morphemes, have been left out of the analysis as the gender cannot be interpreted in them. The NP *på *strand* ('on beach'), for example, includes an obligatory context for definite form, but as the NP lacks all gender markers, it cannot be analysed from the grammatical gender's perspective. L2 learners' NPs may also have additional, non-accurate elements, such as the suffix in *samma *dag-en* ('same day', the accurate form being *samma dag*); i.e. NPs include an accurate gender marker that does not occur in standard Swedish. As the gender can be interpreted, these NPs are included in the analysis as [PR + suffix].

NPs with gender markings have been classified by marker (e.g., suffix, indefinite article, see 4.1), gender (*Svensk Ordbok* 1999 is used as the norm) and accuracy. The frequency of the different gender markers (e.g. suffix) and gender agreements (e.g. [definite article + suffix]) were calculated at the group level by dividing the number of certain types of nouns by the total number of nouns. The accuracy of a specific gender marker or type of gender agreement was calculated at the group level by dividing the total number of accurate (regarding noun gender) occasions by the total number of obligatory occasions (regarding noun gender) of that type. It is expected that the informants in different grades represent different competence levels. Then again, there is always individual variation; i.e. certain informants can be at a low level after a long learning time. Furthermore, accuracy does not always signify mastery. Individuals with only uter nouns in their repertoire can reach high levels of accuracy, as uter is remarkably more frequent in the language than neuter; i.e. a certain pseudo-accuracy might occur.

Pearson's χ^2 was used as a statistics test to calculate the statistical significance of the differences between the different types of gender markers and informant groups as it does not require Gaussian distribution. Our limit value of significance level is $p < .05$. Acquisition sequences were established in line with the principle wherein an accuracy hierarchy delivers an

acquisition sequence in which a high accuracy implies early acquisition and, consequently, an easy construction (Collins et al. 2009). The central research questions are:

- RQ1: Which gender markers are most common in the data? H1: The suffix is the most common gender marker in all groups, as definite singulars are so frequent in the texts by L2 Swedish learners (Nyqvist 2018ab).
- RQ2: Is uter easier than neuter? H2: All groups reach higher accuracy in uter than in neuter and also overuse the uter gender (Andersson 1992, Lahtinen 1998).
- RQ3: What kind of accuracy differences are there between the informant groups? H3: IM9 and CG reach the same accuracy level, as previous research has shown that L2 learners in formal instruction are able to reach a high accuracy level in gender in written data (Lahtinen 1998).
- RQ4: What kind of accuracy hierarchy is there between NPs with simple gender markers and NPs with gender agreement? H4: All groups have higher accuracy with the simple gender markers (Andersson 1992, Lahtinen 1998, Ragnhildstveit 2017).
- RQ5: Is gender agreement more common in the data than the lack thereof? H5: When NPs with accurate gender agreement and NPs with gender agreement with inaccurate gender (e.g. Table 3) are added, agreement is more common than non-agreement in all groups (cf. Lahtinen 1998).

4 RESULTS

The data consist of 10451 singular NPs. Of these, 3968 occur in IM6, 4384 in IM9 and 2099 in CG. Circa three-quarters of nouns produced by IM6 and CG are uter; i.e. these groups show

similarities in common Swedish use (cf. Teleman et al. 1999a; see also Bonacker 2003). IM9 uses more uter nouns than the other groups (89%). In 4.1, we present frequencies for the different types of gender marking in our data. In 4.2, we deal with normative analysis.

4.1 *Frequencies for gender marking*

Table 2 summarises frequencies for different types and combinations occurring in the data, including the NPs without gender markers.

Gender marker(s)	***IM6***		***IM9***		***CG***	
	f	**%**	**f**	**%**	**f**	**%**
suffix	1274	32%	1596	36%	625	30%
no gender marking	1123	28%	991	23%	553	26%
PR attribute	571	14%	707	16%	397	19%
indefinite article	558	14%	511	12%	259	12%
indefinite article + adjective	200	5%	226	5%	66	3%
adjective	63	2%	88	2%	66	3%
PR + suffix	63	2%	104	2%	61	3%
definite article + suffix	63	2%	77	2%	29	1%
definite article	27	<1%	17	<1%	12	1%
PR + adjective[7]	24	<1%	59	1%	14	1%
indefinite article + suffix	1	<1%	4	<1%	1	<1%
indefinite article + adjective + suffix	1	<1%	0	0%	2	<1%

indefinite article + PR	0	0%	2	<1%	1	<1%
definite article + adjective[8]	0	0%	1	<1%	2	<1%
adjective + suffix	0	0%	1	<1%	9	<1%
indefinite article + PR + adjective	0	0%	0	0%	1	<1%
definite article + adjective[8]*+ suffix*	0	0%	0	0%	1	<1%
total	**3968**	**100%**	**4384**	**100%**	**2099**	**100%**

Table 2. Frequencies for different ways to mark gender in the data.

As Table 1 shows, the distribution of the different gender markers is rather similar in all three groups, suffixes being the most common; i.e. H1 holds. This was predictable due to the high frequency of definite singulars in the previous analysis of definiteness marking from the same data (Nyqvist 2018ab). NPs without gender marking (e.g. base forms, NPs with indeclinable PR attributes; see 2.1) are also frequent mainly because base forms are so common in Swedish (Nyqvist 2018ab, 2013). A minority of these occurrences are produced by omitting a suffix or an indefinite article, an inaccuracy typical for Finnish-speaking L2 learners of Swedish (Nyqvist 2018ab, 2013).

The proportions of PR attributes (mainly possessive pronouns, e.g. *min katt* ‘my cat’) and indefinite articles also rise above 10%, but the other NP types, especially those with several markers, are low frequency. NPs with definite articles are especially rare (Axelsson 1994; Nyqvist 2013, 2018ab).

4.2 *Normative analysis*

In this section, we present our data from a normative perspective and omit the gender-neutral NPs. Hence, our analysis builds on 2845 NPs in IM6, 3393 in IM9 and 1546 in CG. Of these, 76% are uter in IM6, 81% in IM9 and 77% in CG; i.e. the uter-neuter distribution is similar to Teleman et al. (1999a; see also Bohnacker 2003). Thus, the informants are unlikely to avoid neuter nouns. First, we treat NPs with simple gender markers (Figure 1), and second, we treat the most common types of gender agreement (Figure 2). Complete statistical data can be read in Tables 7–12 in the Appendix.

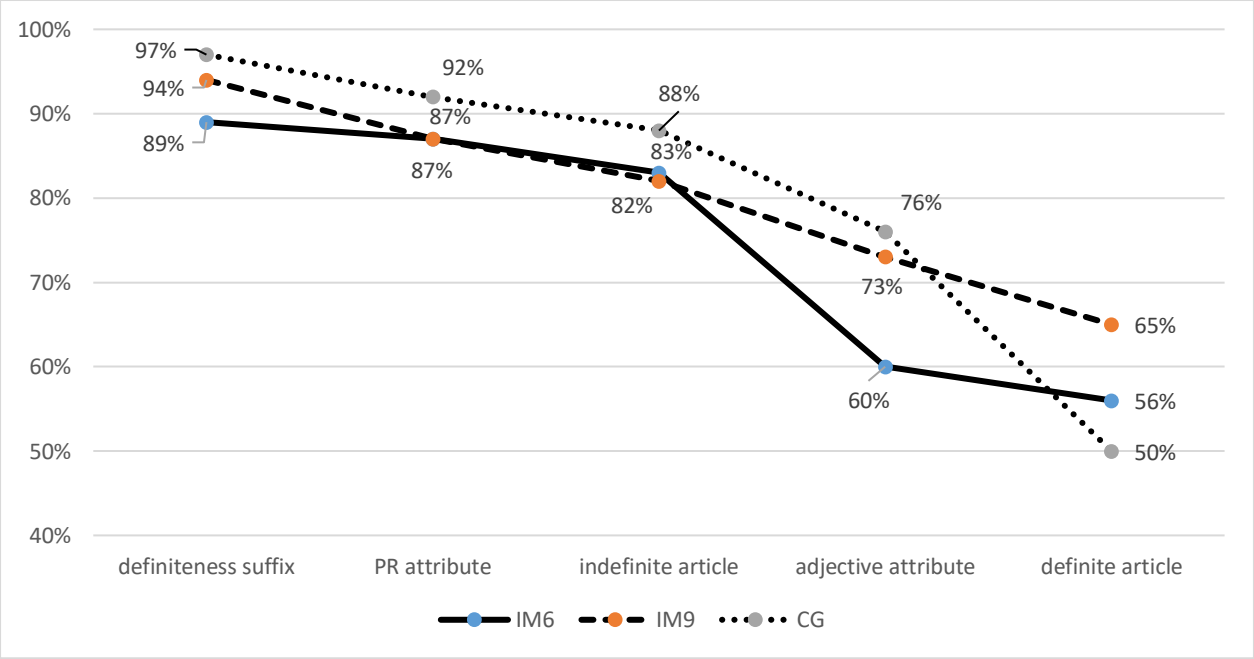

Figure 1. Accuracy scores for simple gender markers in the three informant groups.

Figure 1 shows accuracy differences among these gender markers, but the accuracy hierarchy is similar in all groups. Suffixes (*katt-en* 'the cat', *hus-et* 'the house') have the highest accuracy in all groups (≥ 89%), similar to the findings of Andersson (1992), Lahtinen (1998) and Ragnhildstveit (2018). Definite singulars are also frequent in a corpus study on texts in L2 Swedish teaching materials (Nyqvist 2013); they occur in wordlists and paradigms, which may have prompted their acquisition in the control group. They are used significantly more accurately (Table 7a-c) than other simple gender markers in both IM9 and CG ($p<.01$ in all cases in both groups) and significantly more accurately in IM6 (89%) than indefinite articles (83%), adjectives (60%) and definite articles (56%) ($p<.001$ in all cases).

Also, PR attributes (mainly possessive pronouns, e.g. *min katt* 'my cat', *mitt hus* 'my house') (≥ 87% in all groups) and indefinite articles (*en katt* 'a cat', *ett hus* 'a house') (≥ 82% in all groups) have high accuracy (e.g. Andersson 1992, Lahtinen 1998). However, PR attributes are used significantly more accurately than indefinite articles in immersion groups ($p<.05$ in both groups). Both are rather common in our data but also in the teaching materials in Swedish (Nyqvist 2013). Indefinite articles also occur in wordlists and paradigms. Adjectives (*lång tid* 'long time', *vacker-t väder* 'beautiful weather') reach significantly lower accuracies (≤ 76% in all groups) than the three easiest types of gender markers (suffixes, PR attributes and indefinite articles) in all groups ($p<.001$ in all cases in IM6; $p<.001$ in PR attribute vs. adjective in IM9 and CG; $p<.05$ in indefinite article vs. adjective in IM9; and $p<.01$ in CG).

The definite article (*den stora katt* 'the big cat', *det vackra land* 'the beautiful country') shows the lowest accuracy (≤ 65% in all groups) and is significantly more difficult than the suffix and PR attributes in all groups ($p<.05$ in all groups) and is also significantly more difficult than the indefinite article in IM6 and CG ($p<.001$). Our analysis focuses on gender, but it should be noted that NPs with a definite article as the only gender marker are usually formally incomplete

(as the definite article usually occurs with an adjective attribute and a definite noun with a suffix). Hence, it is not surprising that inaccurate gender also occurs.

In most gender markers, CG reaches a higher accuracy than IM6 and IM9, whereas accuracies for IM6 are lower than for both IM9 and CG for most of the studied morphemes (Table 8); i.e. H3's suggestion that IM9 and CG reach similar accuracies is falsified. CG reaches significantly higher scores than IM6 and IM9 for the three easiest markers ($p<.001$ and $p<.05$, respectively, for suffixes; $p<.05$ and $p<.01$, respectively, for PR attributes; $p<.05$ for indefinite articles in both groups). IM9 also reaches higher accuracy than IM6 in suffixes ($p<.001$).

When accuracies for uter and neuter are compared (Tables 9abc), uter is typically significantly more accurate than neuter; i.e. H2 holds ($p<.001$ for suffix, PR attributes and indefinite article in all groups; $p<.01$ for adjectives in IM9; $p<.05$ in CG; $p<.01$ for definite article in IM6). Differences are nonsignificant for adjectives in IM6 and definite articles in IM9 and CG, in which accuracies for uter are also low. As neuter nouns reach a lower accuracy level, it can also be concluded that overuse of the uter gender is more common than vice versa (as in Andersson 1992, Lahtinen 1998).

In sum, NPs with simple gender markers build a similar accuracy hierarchy in all three groups. Suffix, PR attribute and indefinite article are mastered at high levels. Uter is easier than neuter, and CG usually reaches a higher accuracy than IM6 and IM9. Figure 2 summarises the accuracy scores of the most frequent types of NPs with gender agreement.

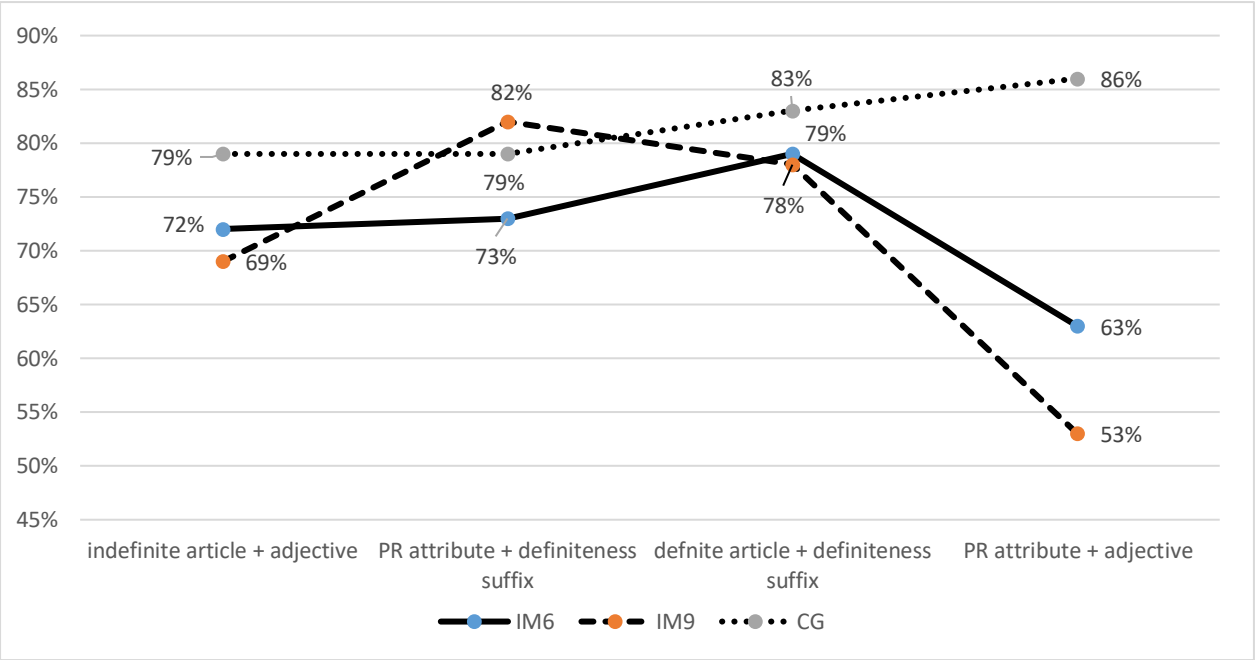

Figure 2. Accuracy scores for the most common types of gender agreement in the three groups.

Our data show several types of constructions with gender agreement. Those in Figure 2 have at least some occurrences in IM6, IM9 and CG (see 4.1). As Figure 2 shows, different groups have different accuracy hierarchies. In IM9, the accuracy is highest (82%) in [PR attribute + suffix] (*den där semester-n* 'that holiday', *det där hus-et* 'that house'), and it is significantly higher than in [indefinite article + adjective] (*en stor katt* 'a big cat', *ett stor-t hus* 'a big house') (69 %) and in [PR attribute + adjective] (*någon stor katt* 'some big cat', *något stor-t hus* 'some big house') (53%) (p<.05 and p<.001, respectively). Accuracy for [PR attribute + adjective] is also significantly lower than that for [definite article + suffix] (78%) and for [indefinite article + adjective] (69%) (p<.01 and p<.05, respectively). In IM6, the accuracy is highest (79%) in [definite article + suffix] (*den stora katt-en* 'the big cat', *det stora hus-et* 'the big house'). In CG,

[PR attribute + adjective] (*någon stor katt* ‘any big cat’, *någo-t varm-t land* ‘any warm country’) is most accurate (86%). However, the differences between the types are nonsignificant in IM6 and CG (see Table 10abc).

Differences between IM6, IM9 and CG are mainly nonsignificant (Table 11), except that CG reaches a significantly higher level of accuracy than IM9 (86% vs. 53%) in [PR attribute + adjective] ($p<.05$), as IM9 overuses uter more than CG does. It should be concluded, however, that H3 is falsified from this perspective, as IM9 and CG do not reach the same accuracy: the formal instruction received by CG appears to have added to the salience of gender agreement.

Uter nouns also tend to be significantly more accurate than the neuter ones (Tables 9abc) in gender agreement ($p<.05$ in all cases in both IM6 and IM9 and for [indefinite article + adjective] and [PR attribute + suffix] in CG). Accuracies for neuter nouns are particularly low (≤ 29% in IM6, ≤ 33% in IM9) in immersion. Thus, it can be concluded that H2 holds and that overuse of uter is also more common than overuse of neuter in gender agreement.

Comparing simple gender markers and gender agreement (Table 12abc), accuracies tend to be higher for the less complex constructions; i.e. H4 holds. In all three groups, the suffix (*katt-en* ‘the cat’, *hus-et* ‘the house’) has a significantly higher accuracy (≥ 89% in all groups) than [definite article + suffix] (*den stor-a katt-en* ‘the big cat’) (≥ 78% in all groups) ($p<.05$ in IM6, $p<.001$ in IM9 and CG). The indefinite article (*en katt* ‘a cat’, *ett hus* ‘the house’) in immersion is significantly more accurate (≥ 82%) than [indefinite article + adjective] (*en stor katt* ‘a big cat’, *ett stor-t hus* ‘the big house’) (72%, 69%; $p<.01$ in both groups).

In IM6, a PR attribute as a simple gender marker (*någon katt, något hus*) is significantly more accurate (87%) than both [PR attribute + suffix] (*den där katt-en, det där hus-et*) (73%) and [PR attribute + adjective] (*någon stor katt, något stort hus*) (63%) ($p<.01$ in both cases). The difference in IM9 is significant only in PR attribute (87%) vs. [PR attribute + adjective] (53%)

(p<.001), and in CG, it is significant only in PR attribute vs. [PR attribute + suffix] (92% vs. 79%, p<.01). The only simple marker with an accuracy lower than that of [definite article + suffix] (*den katt-en, det hus-et*) (≥ 78% in all groups) is the definite article (≤ 65% in all groups) (*den katt, det hus*), and the difference is significant in IM6 (79% vs. 56%) and CG (83% vs. 50%) (p<.05 and p<.01, respectively).

An NP with more than one gender marker often includes both uter and neuter elements. In the following, we will study the different combinations of gender markers. Tables 3 and 4 illustrate the combinations occurring in [indefinite article + adjective], and the NPs (e.g. *en stor katt*) represent all NPs with the same construction; i.e. they are types, not tokens:

	IM6	***IM9***	***CG***
'en stor katt'	**96%**	**84%**	**86%**
*'*ett *stort katt'*	3%	8%	2%
*'en *stort katt'*	1%	4%	9%
*'*ett stor katt'*	-	4%	2%
Total	100%	100%	100%

Table 3. Different versions of an [indefinite article + adjective] in uter NPs.

In uter nouns, the accurate form is most common in all groups. The most common type of inaccuracy in immersion is the consistent use of the neuter form; i.e. agreement is more common than a lack thereof. Thus, the data do not differ from Lahtinen (1998), and H5 holds. The lack of agreement is most common in CG (11% of NPs), where the most common inaccuracy is the use

of the neuter form of the adjective. This also sometimes occurs in immersion. In IM9 and CG, there are also sporadic occasions of an inaccurate indefinite article.

	IM6	***IM9***	***CG***
'ett stort hus'	15%	34%	**61%**
*'*en *stor hus'*	**82%**	**65%**	30%
*'*en stort hus'*	3%	-	4%
*'ett *stor hus'*	-	1%	4%
total	100%	100%	100%

Table 4. Different versions of an [indefinite article + adjective] in neuter NPs.

Neuter nouns clearly deviate from uter ones. Accurate agreement is most common only in CG, whereas most informants in immersion consequently overuse the uter. Hence, the data do not diverge from the results of Lahtinen (1998), and H5 holds. Also, H2 holds, as agreement with accurate gender is more common in uter, but H3 is falsified: IM9 and CG do not reach the same accuracy. The uter form of the indefinite article occurs sporadically in both IM6 and CG, and an inaccurate form of the adjective has one occurrence in both IM9 and CG. Lack of agreement, again, is most common in CG.

Tables 5 and 6 summarise the different combinations in [definite PR attribute + suffix] and [definite article + suffix], i.e. two types of definite NPs.

	IM6	***IM9***	***CG***

'den här/den [svarta] katten'	**85%**	**91%**	**87%**
*'*det här/det [svarta] *kattet'*	0%	4%	0%
*'*det här/det [svarta] katten'*	13%	4%	13%
*'den här/den [svarta] *kattet'*	2%	1%	0%
total	100%	100%	100%

Table 5. Different versions of a [definite PR + suffix] and a [definite article + suffix] in uter NPs.

Accurate agreement is the most common in all three groups, and the consequently inaccurate gender occurs only in IM9. Hence, H5 holds. Non-agreement with an inaccurate PR attribute/definite article is relatively common in IM6 and CG but rare in IM9, and the inaccurate suffix is exceptional in uter nouns, as definite singulars are often acquired as unanalysed wholes: the fact that informants occasionally produce an [indefinite article + suffix, e.g., *en katt-*en* 'a the cat'] supports this perception (Nyqvist 2013, 2018ab). Because nouns generally have an accurate suffix in NPs with non-agreement, they may be acquired as unanalysed wholes (see also Lahtinen 1998, Ragnhildstveit 2018).

	IM6	***IM9***	***CG***
'det här/det [svarta] huset'	**47%**	28%	**55%**
*'*den här/den [svarta] *husen'*	28%	**45%**	20%
*'*den här/den [svarta] huset'*	25%	24%	25%

*'det här/det [svarta] *husen'*	0%	3%	0%
Total	100%	100%	100%

Table 6. Different versions of [definite PR + suffix] and [definite article + suffix] in neuter NPs.

Neuter nouns also deviate from uter ones in definite NPs. Accurate agreement is most common in IM6 and CG, but the percentage surpasses 50% only in CG; i.e. IM9 and CG do not reach the same level, which falsifies H3. The type with a consequent inaccurate gender marking is most common in IM9, but it is also common in the two other groups. This is not surprising, as overuse of the uter is common in the data (Andersson 1992, Lahtinen 1998). Hence, gender agreement is more common than lack of it; i.e. H5 holds. Still, lack of agreement is more common than in uter. In non-agreement, an inaccurate form of the PR attribute/definite article is common in all groups.

In sum, IM6, IM9 and CG have different profiles in gender agreement. Uter is also easier than neuter in these more complex NPs, but differences between the groups lack statistical significance. By contrast, accuracies for gender agreement are generally significantly lower than those for simple gender markers; i.e. NP complexity is a crucial part of the acquisition process. In many cases, the form of the adjective is the typical challenge.

5 DISCUSSION AND CONCLUSION

Gender is often presented as challenging for L2 learners due to its semantic opacity and minimal communicative weight. In addition, gender markers are polyfunctional morphemes with low

salience. This has been found, e.g. in Canadian immersion studies (Harley 1998; Lyster 2004, 2010), but previous studies in L2 Swedish (Andersson 1992, Lahtinen 1998) have shown high accuracies, and the actual study with teenaged informants in immersion and non-immersion settings points in the same direction.

The suffix is the most common gender marker in all groups due to the high frequency of definite singulars (Author 1 2018ab), which confirms H1. It is also the most accurately used of all simple gender markers; i.e. the result is in harmony with previous research (Andersson 1992; Lahtinen 1998; Ragnhildstveit 2017, 2018). Accuracies for NPs where gender is marked with a suffix, indefinite article or PR attribute are high in all informant groups, while accuracies for adjectives and definite articles as sole gender markers are lower. Two factors may explain this. First, the suffix is a bound morpheme, whereas other simple gender markers are syntactical constructions. Second, the most accurate gender markers, especially suffixes, show a higher frequency in the input than the less accurate types; i.e. learners have encountered them more often. Hence, according to usage-based grammar, learners might acquire definite singulars as unanalysed wholes, which adds to their accuracy. Axelsson (1994) has also suggested that Finnish learners of L2 Swedish are especially sensitive to suffixes due to their L1.

All groups reach a higher accuracy in uter than in neuter, which confirms H2. The uter gender is also overused, which is natural from the usage-based point of view, as a majority (ca 75%; see Bohnacker 2003) of all nouns in Swedish are uter; this distribution holds true for both oral and written, formal and informal discourse. This result also confirms the previous research (Andersson 1992, Lahtinen 1998).

The results likewise show that NPs with more than one gender marker are significantly less accurate, which confirms H4. Definite NPs with an adjective, i.e. the most typical context for definite articles in Swedish, have been challenging for L2 learners in previous studies due to their

high complexity (Axelsson 1994; Nyqvist 2013, 2018ab; see also DeKeyser 2005). Thus, it is not surprising that accuracies are also lower when analyses focus on gender. NPs with suffixes are also among the easiest of the more complex NPs, which strengthens the interpretation that the suffixed nouns are acquired as wholes. Overall, however, agreement is more common than non-agreement in all groups, especially with uter nouns, which confirms H5; i.e. these complex NPs consequently have inaccurate gender marking more often than gender marking with both uter and neuter elements. Hence, feature-related factors (Housen & Simoens 2016) such as complexity, frequency and salience, which are also central to usage-based grammar (N. Ellis & Wullf 2015, Bybee 2008, DeKeyser 2005, Goldschneider & DeKeyser 2001) are crucial in the acquisition of gender.

When IM6, IM9 and CG are compared, CG, i.e. the non-immersion group, usually reaches the highest accuracies. This result falsifies H3 and also shows that rich input alone is not sufficient for the acquisition of gender in L2 Swedish. However, a common trait for the three groups is that accuracies for neuter nouns are most often significantly lower than those for uter nouns. Similar results have been reached in previous studies (Andersson 1992, Lahtinen 1998). In the actual data, accuracies for neuter nouns are higher in non-immersion, and one explanation might be that, from the beginning, learners in non-immersion are taught that Swedish nouns have two genders. They also see indefinite articles in wordlists and paradigms in their teaching materials, which enhance their ability to notice the phenomenon. In more naturalistic SLA, the learners might never explicitly receive this information – anyway, they do not receive it at the beginning of their acquisition at immersion daycare. In Swedish, uter is substantially more common than neuter, and thus, immersion learners may not realise that the target language has two genders in the early stages of acquisition (cf. Bohnacker 2003). The differences between IM6 and IM9 are mostly nonsignificant; i.e. context-related factors appear to be more crucial than

learner-related ones (see Housen & Simoens 2016). However, it is important to note that all these results deal with grammatical accuracy and do not tell anything of the practical communicative competence in the language, which is essential in immersion.

Inaccuracies in gender rarely put comprehensibility in danger, but they label the speaker as an L2 speaker. Hence, in the future, it will be important to study the effect of pedagogical interventions on the acquisition of gender in immersion, as previous research (Harley 1998, Lyster 2010) has shown that didactic interventions help learners to focus on gender. As our informants' inaccuracies concentrate on neuter nouns and complex NPs, it will be important to find ways to enhance the salience – and, thus, the noticing of gender markers – and to study the impact of these kinds of interventions.

For example, a teaching experiment could attend to the low frequency of neuter nouns and certain NP types with study materials, providing input where these NPs occur often, as higher frequency strengthens memory representations (e.g. N. Ellis & Wullf 2015, Audring 2019). Written input is especially profitable for developing implicit knowledge (Kim & Godfroid 2019), and the salience of construction can then be enhanced, e.g. by using different fonts. Even Swedish researchers (Håkansson et al. 2019, Prentice et al. 2016) have proposed an increased focus on pattern recognition for effective L2 instruction, and it would be interesting to study the effect of this in acquisition. Gender has often been used to show an infamously difficult structure, but if the rich input and meaningful communication typical of immersion are combined with effective explicit instruction, it is likely that the learners will reach a high level of competence.

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APPENDIX

Statistical data

Appendix

Table 7ac. Different types of NPs with simple gender markers.

IM6	suffix 89%	PR attribute 87%	indefinite article 83%	adjective 60%	definite article 56%
suffix	–	χ^2=0,039, df=1, p=.333	χ^2=12,193, df=1, *p*=.000	χ^2=43,324, df=1, *p*=.000	χ^2=27,238, df=1, *p*=.000
PR attribute		–	χ^2=42,97, df=1, *p*=.038	χ^2=30,750, df=1, *p*=.000	χ^2=20,775, df=1, *p*=.000
indefinite article			–	χ^2=17,831, df=1, *p*=.000	χ^2=12,440, df=1, *p*=.000
adjective				–	χ^2=0,177 df=1, *p*=.674

IM9	suffix 94%	PR attribute 87%	indefinite article 82%	adjective 73%	definite article 65%

suffix	–	χ^2=36,261, df=1, *p*=.000	χ^2=67,599, df=1, *p*=.000	χ^2=57,728, df=1, *p*=.000	χ^2=24,673, df=1, p=.000
PR attribute		–	χ^2=4,380, df=1, *p*=.036	χ^2=4,380, df=1, *p*=.001	χ^2=6,607, df=1, *p*=.01
indefinite article			–	χ^2=4,335, df=1, *p*=.037	χ^2=3,355, df=1, *p*=.067
adjective				–	χ^2=0,449, df=1, *p*=.503

CG	suffix 97%	PR attribute 92%	indefinite article 88%	adjective 76%	definite article 50%
suffix	–	χ^2=10,909, df=1, *p*=.001	χ^2=24,501, df=1, *p*=.000	χ^2=51,367, df=1, *p*=.000	χ^2=63,099, df=1, *p*=.000
PR attribute		–	χ^2=2,758, df=1, *p*=.097	χ^2=10,939, df=1, p=.001	χ^2=24,310, df=1, *p*=.000
indefinite article			–	χ^2=6,405, df=1, *p*=.011	χ^2=14,070, df=1, *p*=.000
adjective				–	χ^2=3,367, df=1, *p*=.068

Table 8. Accuracy scores for simple gender markers between informant groups.

	Accuracy score			**IM6 vs. IM9**			**IM6 vs. CG**			**IM9 vs. CG**		
	IM6	**IM9**	**CG**	**χ^2**	**df**	***p***	**χ^2**	**df**	***p***	**χ^2**	**df**	***p***

suffix	89%	94%	97%	27,250	1	=.000	33,828	1	=.000	6,097	1	.014
PR attribute	87%	87%	92%	0,063	1	.802	5,764	1	.016	7,219	1	.007
indefinite article	83%	82%	88%	0,033	1	.855	3,925	1	.048	4,395	1	.036
adjective	60%	73%	76%	2,579	1	.108	3,544	1	.060	0,180	1	.671
definite article	56%	65%	50%	0,361	1	.548	0,103	1	.748	0,627	1	.428

Table 9a-c. Comparisons between uter and neuter nouns.

IM6	**Accuracy score**				
	uter	**neuter**	χ^2	**df**	***p***
suffix	97%	67%	216,927	1	.000
PR attribute	97%	32%	281,243	1	.000
indefinite article	97%	30%	286,306	1	.000
adjective	65%	52%	1,004	1	.316
definite article	68%	0%	7,670	1	.006
indefinite article + adjective	95%	15%	129,925	1	.000
PR attribute + suffix	92%	7%	39,634	1	.000
definite article + suffix	94%	23%	31,690	1	.000
PR attribute + adjective	76%	29%	4,854	1	.028

IM9	**Accuracy score**				
	uter	**neuter**	χ^2	**df**	***p***
suffix	97%	81%	114,324	1	.000
PR attribute	92%	52%	116,570	1	.000
indefinite article	94%	34%	202,536	1	.000
adjective	82%	50%	9,610	1	.002
definite article	67%	60%	0,069	1	.793
indefinite article + adjective	83%	33%	53,024	1	.000
PR attribute + suffix	91%	21%	39,398	1	.000
definite article + suffix	89%	33%	21,529	1	.000
PR attribute + adjective	71%	32%	8,893	1	.003

CG	**Accuracy score**				
	Uter	**neuter**	χ^2	**df**	***p***
suffix	99%	88%	40,677	1	.000
PR attribute	97%	68%	61,664	1	.000
indefinite article	97%	63%	55,098	1	.000
adjective	87%	52%	9,165	1	.022
definite article	63%	25%	2,236	1	.221
indefinite article + adjective	86%	64%	4,533	1	.033
PR attribute + suffix	89%	53%	9,317	1	.022
definite article + suffix	85%	67%	0,067	1	.436
PR attribute + adjective	100%	75%	1,750	1	.186

Table 10. Different types of NPs with gender agreement.

IM6	indefinite article + adjective 72%	PR attribute + suffix 73%	definite article + suffix 79%	PR attribute + adjective 63%
indefinite article + adjective	–	χ^2=0,054, df=1, *p*=.816	χ^2=1,517, df=1, *p*=.218	χ^2=0,835, df=1, *p*=.361
PR attribute + suffix		–	χ^2=0,700, df=1, *p*=.403	χ^2=0,917, df=1, *p*=.338
definite article + suffix			–	χ^2=2,616, df=1, *p*=.106

IM9	indefinite article + adjective 79%	PR attribute + suffix 79%	definite article + suffix 83%	PR attribute + adjective 86%
indefinite article + adjective	–	χ^2=6,206, df=1, *p*=.013	χ^2=2,430, df=1, *p*=.119	χ^2=5,311, df=1, *p*=.021
PR attribute + suffix		–	χ^2=0,403, df=1, *p*=.526	χ^2=15,629, df=1, *p*=.000
definite article + suffix			–	χ^2=9,719, df=1, *p*=.002

CG	indefinite article + adjective 69%	PR attribute + suffix 82%	definite article + suffix 78%	PR attribute + adjective 53%
indefinite article + adjective	–	χ^2=0,000, df=1, *p*=.989	χ^2=0,199, df=1, *p*=.656	χ^2=0,346, df=1, *p*=.556
PR attribute + suffix		–	χ^2=0,204, df=1, *p*=.652	χ^2=0,351, df=1, *p*=.553
definite article + suffix			–	χ^2=0,061, df=1, *p*=.806

Table 11. Accuracy scores for gender agreement between informant groups.

	Accuracy score			**IM6 vs. IM9**			**IM6 vs. CG**			**IM9 vs. CG**		
	IM6	**IM9**	**CG**	**χ^2**	**df**	***p***	**χ^2**	**df**	***p***	**χ^2**	**df**	***p***
indefinite article + adjective	72%	69%	79%	0,429	1	.512	1,347	1	.246	2,577	1	.108
PR attribute + adjective	73%	82%	79%	0,685	1	.408	2,317	1	.128	5,143	1	.023
definite article + suffix	79%	78%	83%	0,043	1	.836	0,145	1	.703	.300	1	.584
PR attribute + adjective	63%	53%	86%	1,762	1	.184	0,544	1	.461	0,228	1	.633

Table 12a-c. Accuracy scores between NPs with simple gender markers and NPs with gender agreement.

IM6	**Accuracy score**				
	simple	**agreement**	χ^2	**df**	***p***
suffix vs. definite article + suffix	89%	79%	4,933	1	.026
indefinite article vs. indefinite article + adjective	83%	72%	8,222	1	.004
PR attribute vs. PR attribute + suffix	87%	73%	9,078	1	.003
PR attribute vs. PR attribute + adjective	87%	63%	11,555	1	.001
definite article vs. definite article + suffix	56%	79%	5,341	1	.021

IM9	**Accuracy score**				
	simple	**agreement**	χ^2	**df**	***p***
suffix vs. definite article + suffix	94%	78%	30,579	1	.000
indefinite article vs. indefinite article + adjective	82%	69%	16,919	1	.000
PR attribute vs. PR attribute + suffix	87%	82%	1,752	1	.186
PR attribute vs. PR attribute + adjective	87%	53%	46,759	1	.000
definite article vs. definite article + suffix	65%	78%	1,316	1	.251

CG	**Accuracy score**				
	simple	**agreement**	χ^2	**df**	***p***
suffix vs. definite article + suffix	97%	83%	13,989	1	.000
indefinite article vs. indefinite article + adjective	88%	79%	3,767	1	.052

PR attribute vs. PR attribute + suffix	92%	79%	10,479	1	.001
PR attribute vs. PR attribute + adjective	92%	86%	0,691	1	.406
definite article vs. definite article + suffix	50%	83%	11,752	1	.001

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NOTES

[1] There are no immersion upper secondary schools in Finland (Bergroth 2015).

[2] A similar distribution has been found in modern Danish (Hansen & Heltoft 2011).

[3] For spoken language, see Teleman et al. (1999a:101)

[4] Commonly called *syllabus A2 Swedish* (see FNBE 2014a; Government Decree 422/2012).

[5] 38 lessons excluding homework (FNBE 2015).

[6] The immersion data were analysed from the perspective of definiteness and article use in Nyqvist (2018ab).